(b) *Fuels meeting alternate specifications.* We may allow you to use a different test fuel (such as California Phase 2 gasoline) if it does not affect your ability to show that your engines would comply with all applicable emission standards using the fuel specified in this subpart.

(c) *Fuels not specified in this subpart.* If you produce engines that run on a type of fuel (or mixture of fuels) that we do not specify in this subpart, you must get our written approval to establish the appropriate test fuel. See the standard-setting part for provisions related to fuels and fuel mixtures not specified in this subpart.

(1) For engines designed to operate on a single fuel, we will generally allow you to use the fuel if you show us all the following things are true:

(i) Show that your engines will use only the designated fuel in service.

(ii) Show that this type of fuel is commercially available.

(iii) Show that operating the engines on the fuel we specify would be inappropriate, as in the following examples:

(A) The engine will not run on the specified fuel.

(B) The engine or emission controls will not be durable or work properly when operating with the specified fuel.

(C) The measured emission results would otherwise be substantially unrepresentative of in-use emissions.

(2) For engines that are designed to operate on different fuel types, the provisions of paragraphs (c)(1)(ii) and (iii) of this section apply with respect to each fuel type.

(3) For engines that are designed to operate on different fuel types as well as continuous mixtures of those fuels, we may require you to test with either the worst-case fuel mixture or the most representative fuel mixture, unless the standard-setting part specifies otherwise.

* * * * *

(e) *Service accumulation and field testing fuels.* If we do not specify a service-accumulation or field-testing fuel in the standard-setting part, use an appropriate commercially available fuel such as those meeting minimum specifications from the following table:

TABLE 1 OF § 1065.701.—EXAMPLES OF SERVICE-ACCUMULATION AND FIELD-TESTING FUELS

Fuel category	Subcategory	Reference procedure [1]
Diesel	Light distillate and light blends with residual	ASTM D975–07b.
	Middle distillate	ASTM D6751–07b.
	Biodiesel (B100)	ASTM D6985–04a.
Intermediate and residual fuel	All	See § 1065.705.
Gasoline	Motor vehicle gasoline	ASTM D4814–07a.
	Minor oxygenated gasoline blends	ASTM D4814–07a.
Alcohol	Ethanol (Ed75–85)	ASTM D5798–07.
	Methanol (M70–M85)	ASTM D5797–07.
Aviation fuel	Aviation gasoline	ASTM D910–07.
	Gas turbine	ASTM D1655–07e01.
	Jet B wide cut	ASTM D6615–06.
Gas turbine fuel	General	ASTM D2880–03.

[1] ASTM specifications are incorporated by reference in § 1065.1010.

§ 1065.703 Distillate diesel fuel.

(a) Distillate diesel fuels for testing must be clean and bright, with pour and cloud points adequate for proper engine operation.

(b) There are three grades of #2 diesel fuel specified for use as a test fuel. See the standard-setting part to determine which grade to use. If the standard-setting part does not specify which grade to use, use good engineering judgment to select the grade that represents the fuel on which the engines will operate in use. The three grades are specified in Table 1 of this section.

(c) You may use the following nonmetallic additives with distillate diesel fuels:

(1) Cetane improver.

(2) Metal deactivator.

(3) Antioxidant, dehazer.

(4) Rust inhibitor.

(5) Pour depressant.

(6) Dye.

(7) Dispersant.

(8) Biocide.

TABLE 1 OF § 1065.703—TEST FUEL SPECIFICATIONS FOR DISTILLATE DIESEL FUEL

Item	Units	Ultra low sulfur	Low sulfur	High sulfur	Reference procedure [1]
Cetane Number		40–50	40–50	40–50	ASTM D 613–03b
Distillation range:					
Initial boiling point	°C	171–204	171–204	171–204	ASTM D 86–04b
10 pct. point	°C	204–238	204–238	204–238	
50 pct. point	°C	243–282	243–282	243–282	
90 pct. point	°C	293–332	293–332	293–332	
Endpoint	°C	321–366	321–366	321–366	
Gravity	°API	32–37	32–37	32–37	ASTM D 287–92
Total sulfur	mg/kg	7–15	300–500	2000–4000	ASTM D 2622–03
Aromatics, minimum. (Remainder shall be paraffins, naphthalenes, and olefins).	g/kg	100	100	100	ASTM D 5186–03
Flashpoint, min	°C	54	54	54	ASTM D 93–02a
Viscosity	cSt	2.0–3.2	2.0–3.2	2.0–3.2	ASTM D 445–04

[1] All ASTM procedures are incorporated by reference in § 1065.1010. See § 1065.701(d) for other allowed procedures.

EFFECTIVE DATE NOTE: At 73 FR 37340, June 30, 2008, § 1065.703 was amended by revising Table 1, effective July 7, 2008. For the convenience of the user, the revised text is set forth as follows:

§ 1065.703 Distillate diesel fuel.

* * * * *

TABLE 1 OF § 1065.703.—TEST FUEL SPECIFICATIONS FOR DISTILLATE DIESEL FUEL

Item	Units	Ultra low sulfur	Low sulfur	High sulfur	Reference procedure [1]
Cetane Number	40–50	40–50	40–50	ASTM D613–05.	
Distillation range	°C				
Initial boiling point	171–204	171–204	171–204	ASTM D86–07a.	
10 pct. point	204–238	204–238	204–238		
50 pct. point	243–282	243–282	243–282		
90 pct. point	293–332	293–332	293–332		
Endpoint	321–366	321–366	321–366		
Gravity	° API	32–37	32–37	32–37	ASTM D4052–96e01.
Total sulfur	mg/kg	7–15	300–500	2000–4000	ASTM D2622–07.
Aromatics, min. (Remainder shall be paraffins, naphthalenes, and olefins).	g/kg	100	100	100	ASTM D5186–03.
Flashpoint, min.	°C	54	54	54	ASTM D93–07.
Kinematic Viscosity	cSt	2.0–3.2	2.0–3.2	2.0–3.2	ASTM D445–06.

[1] ASTM procedures are incorporated by reference in § 1065.1010. See § 1065.701(d) for other allowed procedures.

§ 1065.705 Residual and intermediate residual fuel.

This section describes the specifications for fuels meeting the definition of residual fuel in 40 CFR 80.2, including fuels marketed as intermediate fuel. Residual fuels for service accumulation and any testing must meet the following specifications:

(a) The fuel must be a commercially available fuel that is representative of the fuel that will be used by the engine in actual use.

(b) The fuel must meet the specifications for one of the categories in the following table: